



## Notice Inviting e-Tender

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Procurement, supply and installation of Hi Tech Analytical Instruments for State Drugs  
Control & Research Laboratory (SDCRL) of the Government of West Bengal  
(Submission of Bid through *online*)

Bid Reference No.: WBMSCL/NIT-101 /2025

Dated-06.02.2025

The following amendment have been made in the tender document,

### Amendment –I (Revision of Technical Specification)

The revised technical specifications for the item is given below,

#### High-Performance Liquid Chromatography (HPLC) System with Accessories

SL	Features	Specification
	A complete HPLC System	A complete HPLC System with Pump, Auto Sampler, Detector, Column Oven, Software, Columns and necessary PC-Printer. All units must be from a single manufacturer with 3 Years Warranty.
1	Pumps	<ul style="list-style-type: none"><li>• Pump should provide error-free programming of pump parameters including flow rates, operating pressure limits, compressibility compensation, calibration and diagnostics.</li><li>• Pump hydraulic system should be dual piston in series pump with variable stroke design and smooth motion control for active damping</li><li>• The Solvent Delivery Unit (Pump) should be capable of operating with 2 or more Solvents at a time during gradient operation limits, compressibility compensation, calibration and diagnostics.</li><li>• Number of solvent channels should be Four.</li><li>• Settable flow range should be from 0.001 - 5.0 mL/min, in 0.001 mL/ min increments.</li></ul>

		<ul style="list-style-type: none"> <li>Flow precision value should be <math>\leq 0.07</math> % RSD.</li> <li>Flow accuracy should be <math>\pm 1</math>%.</li> <li>Must deliver a flow rate of up to 5.0 mL/min.</li> <li>Must have an operation pressure range of 0 - 800 bar (11600 Psi) up to 5ml/min</li> <li>Pressure pulsation &lt; 1% amplitude</li> <li>Should have a pH range 1.0 - 12.5.</li> <li>Integrated online degassing unit for minimum 4 channels.</li> <li>Composition precision should be &lt; 0.15% RSD.</li> <li>Delay volume <math>\leq 350</math> <math>\mu</math>L</li> <li>Active seal wash</li> <li>Enables automatic software-embedded functionalities such as switching the optional mixer in and out or automatic purging</li> <li>Should have facility to ensures seamless method transfer/delivering the same chromatographic results of other HPLC or latest UHPLC method</li> <li>Should have the provision for complete up gradation capability (module wise and system wise) in future.</li> </ul>
2	Auto sampler capacity with sample cooler	<ul style="list-style-type: none"> <li>The Auto sampler must have a capacity to hold 120 samples or better</li> <li>Must have an operation pressure range of 0 - 800 bar (11600 Psi)</li> <li>Injection range should be 0.1 to 100 <math>\mu</math>L.</li> <li>Sampler should be capable of injection volume range upto 1500 <math>\mu</math>L or higher with additional loop and hardware modification as and when required.</li> <li>Precision should be &lt; 0.25 % RSD</li> <li>Carryover should be &lt; 0.004 %.</li> <li>Injection cycle time should be 18 s or better.</li> <li>Should have advanced features like auto dilution, premixing and needle rinsing programs.</li> <li>Sampler Thermostat temp: 4-40deg</li> </ul>
3	Column Thermostat	<p>Thermostatted column compartment with Peltier should have following features:</p> <p>Settable Temperature range: 10°C below ambient to 85°C</p> <p>Temperature stability: <math>\pm 0.1</math> °C</p> <p>Temperature accuracy: <math>\pm 0.5</math> °C</p> <p>Temperature precision 0.05°C</p> <p>Column capacity: minimum 4 columns (max. 300 mm)</p> <p>Warm-up/ cool-down time 5 min from ambient to 40°C &amp; 10 min from 40 to 20°C.</p> <p>Compatible for selection of columns by single optional integrated 4-column selection valve 800 bar</p>
4	Photo Diode Array Detector	<ul style="list-style-type: none"> <li>Wavelength range should be 190 - 950 nm or more.</li> <li>Detection type should be with 1024-element photodiode array.</li> <li>Light source - Deuterium and tungsten lamps.</li> <li>Data rate 120 Hz or better (both spectra and signals)</li> <li>Wavelength accuracy = <math>\pm 1</math> nm.</li> <li>Slit width should be 1, 2, 8 &amp; 16 nm.</li> <li>Flow cell- Standard: 13 <math>\mu</math>L, volume, 10 mm cell path length or better</li> <li>Short term noise &lt; <math>\pm 1 \cdot 10^{-5}</math> AU</li> <li>Drift &lt; 1.0, <math>10^{-3}</math> AU/h at 254 nm.</li> </ul>

		<ul style="list-style-type: none"> <li>Linear absorbance range &gt; 2 AU (5 %) at 265 nm.</li> <li>Data traceability for flow cells and lamps should be there.</li> </ul>
5	Chromatography Software	<ul style="list-style-type: none"> <li>Windows based software for evaluation of data, control and operation of entire system.</li> <li>System security to be provided by the software and not by the operating system</li> <li>User accounts, user privileges and audit trails are maintained by the software and not by the operating system</li> <li>Compliance with cGMP /GLP &amp; Electronic Record rules</li> <li>Software should have its own built in report.</li> <li>Software should control multi detectors (DAD-FLD-RID) at a time</li> <li>Data that has been reviewed and approved may be locked to prevent further manipulations</li> <li>Software should offer extensive custom calculation capabilities (Concentration, calibration curve, peak soothing, peak subtraction etc.) eliminating the need for external applications to meet the laboratory need.</li> </ul>
6	Analytical Columns	<ul style="list-style-type: none"> <li>Analytical Columns</li> <li>✓ C18 column (4.6 mm ID x 250 mm length, particle size <math>5\mu\text{m}</math>): Qty-4</li> <li>✓ C18 column (3 mm ID x 150 mm length, particle size <math>2.7\mu\text{m}</math>): Qty-1</li> <li>✓ C8 column (4.6 mm ID x 250 mm length, particle size <math>5\mu\text{m}</math>): Qty-4</li> <li>✓ Silica column ((4.6 mm ID x 250 mm length, particle size <math>5\mu\text{m}</math>): Qty-1</li> <li>✓ CN column (4.6 mm ID x 250 mm length, particle size <math>5\mu\text{m}</math>): Qty-1</li> <li>✓ Pheny1 column (4.6 mm ID x 250 mm length, particle size <math>5\mu\text{m}</math>) .Qty-1</li> <li>✓ Compatible Guard Column 1 set for each type of column</li> </ul>
7	Accessories	<ol style="list-style-type: none"> <li>Sample Vials 1.5 ml or greater 1000 Nos</li> <li>PTFE Frits 5 Nos</li> <li>Deuterium 1amp : 1 Nos</li> <li>Solvent bottle clear, 1000ml with cap 4 Nos</li> <li>Solvent bottle amber, 1000ml 4 Nos</li> </ol>
8	IQ/OQ	IQ, OQ of instrument and Software should be provided along with document.
9	GLP Features	Early maintenance feedback (EMF) for continuous tracking of instrument usage in terms of seal wear and volume of pumped mobile phase with pre- defined and user settable limits and feedback messages. Electronic records of maintenance and errors
10	Computer & printer	<ul style="list-style-type: none"> <li>Computer with Processor type: Intel Core i7 Processor (&gt; 3.0GHz), 16 GB RAM or better.</li> <li>Memory size: 1 TB HD, CD-ROM or DVD + RW drive, USB port.</li> <li>Operating system; Windows10/11 Professional (64 bit) or most recent with license.</li> <li>Monitor type: Wide Screen Monitor (Minimum 22" or better); Graphic Resolution 1920x1080 or better</li> <li>Suitable B/W laser printer.</li> <li>Warranty 3 years for PC, Printer</li> <li>Portable Data Handling &amp; Storage System</li> </ul>
11	Delivery	Delivery as F.O.R Destination

12	<b>Warranty</b>	<ul style="list-style-type: none"> <li>• 3 years warranty from the date of installation.</li> <li>• The vendor should have availability for 7 years guaranteed parts and services even after last unit of manufacture</li> </ul>
13	<b>Compliance Statement</b>	<ul style="list-style-type: none"> <li>• The supplier must submit technical brochures and proper application notes adequately explaining and confirming the availability of the features in the model of the equipment being quoted.</li> <li>• The supplier must submit a table indicating the compliance of the features of the model of the equipment being quoted with those given in the indent.</li> <li>• Features not matching - must be clearly indicated.</li> <li>• Additional features and features in the quoted equipment which are better than those in the indent - may be clearly explained.</li> <li>• Bids submitted must be with a Technical specifications of each module quoted to evaluate the technical compliance.</li> <li>• All pre-installation requirements must be attached</li> </ul>